



TESORO

Tesoro Refining & Marketing Company LLC
Martinez Refinery
150 Solano Way
Martinez, CA 94553-1487

January 26, 2017

USPS CERTIFIED MAIL: 7014 2870 0001 3488 8014

Mr. Wayne Kino
Director of Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105

B2758 E
B2759

SUBJECT: Tesoro Martinez Refinery Title V Semi-Annual Monitoring Report
Reporting Period: July 1, 2016 to December 31, 2016
Plant #B2758 & #B2759

Dear Mr. Kino:

Pursuant to the requirements outlined in Section I, Standard Conditions, Part F. of the Tesoro Refining and Marketing Company Title V Permit, issued on January 11, 2016, the attached document includes information for the above reference reporting period. The Semi-Annual Monitoring report consists of two parts. The first part summarizes of all the Inoperative Monitors reported for the reporting period; the second part summarizes all the Title V deviations that occurred during the reporting period. This Title V Semi-Annual Monitoring Report contains the signature of Tesoro's responsible official, Mr. Thomas A. Lu, as required by Regulation 2-6-502, and by 40 CFR Part 70.6.

For questions, please contact David Chetkowski of my staff at (925) 335-3451.

Sincerely,

Matthew W. Buell
Manager, Environmental

MWB/DMC/kds

Attachment

cc: Mr. Ray Salilila, BAAQMD Enforcement Inspector (E-mail)

Tesoro Martinez Refinery
Inoperative Monitors
Reporting Period: 7/1/2016 to 12/31/2016

Inoperative Monitors as defined by BAAQMD Regulations 1-522 and 1-523
for the reporting period are summarized below:

Date	IME ID#	Unit	Pollutant / Parameter
7/7/2016	06273	DCU Flare Hdr	H2S
7/13/2016	06279	40# Fuel Gas System	H2S
8/3/2016	06290	DCU Flare Hdr	H2S
8/3/2016	06290	East Air Flare	H2S
8/3/2016	06290	Emergency Flare	H2S
8/3/2016	06290	N/S Steam Flare	H2S
8/3/2016	06290	West Air Flare	H2S
8/5/2016	06291	100# Fuel Gas System	H2S
8/10/2016	06294	100# Fuel Gas System	H2S
8/10/2016	06294	100# Fuel Gas System	H2S
8/15/2016	07A02	40# Fuel Gas System	H2S
9/1/2016	07A18	Furnace F-19/F-20	NOX
12/5/2016	07B15	FCCU Regen	NOX
12/8/2016	07B20	Furnace F-37	NOX
12/13/2016	07B22	6 Boiler	SO2
12/13/2016	07B23	Furnace F-37	NOX

Certification Statement

I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate and complete



Signature of Responsible Official

Vice President, Martinez Refinery

Title

1/27/2017

Date

BAAQMD Title V Permit
Semi-Annual Monitoring Report

July-16 -- December-16

B2758 & B2759 -- Tesoro Martinez Refinery and Amoco Terminal

Facility Address:

150 Solano Way

City: Martinez

State: CA

Zip Code: 94553

Mailing Address:

150 Solano Way

City: Martinez

State: CA

Zip Code: 94553

Contact:

Matthew Buell

Title:

Environmental Manager

Phone:

925 - 370 - 3275

Applicable Regulation / Permit Condition / Other:

BAAQMD 2-6-307, BAAQMD 9-1-313(2), 40 CFR 60.104(a)(1)

Date Event
Started:

10/06/2014

Date Event
Stopped:

11/29/2014

Source (S#):

Abatement Device (A#):

Emission Point (P#):

Event Description: The refinery received NOV A56206 on 9/8/2016 for alleged violations that occurred while flaring during the Refinery's 2014 Turnaround.

Probable Cause:

Gases were safely collected and routed to the Refinery's flares during the 2014 Turnaround period, and in accordance with the Tesoro's approved Flare Minimization Plan.

Corrective Action or Preventive Steps Taken:

Tesoro disagrees with many of the conclusions drawn by the District staff that resulted in the issuance of NOV A56206 and will provide additional information in future discussions with the District. Additional information related to this NOV was submitted to the District in a letter dated September 16, 2016.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-9-301(1), Title V-VI(19528)(21), BAAQMD 1-523(3)

Date Event
Started:

01/27/2016

Date Event
Stopped:

01/27/2016

Source (S#): S963

Abatement Device (A#): A963

Emission Point (P#):

Event Description: During startup of the Alky natural gas-fired-turbine (GFT), the steam-to-fuel gas ratio was below 2.0. The incident was discovered on 7/12/2016, and reported as RCA 06Z74. NOV A56209 was issued on 9/8/2016.

Probable Cause:

Steam injection was not initiated in a timely fashion during startup of the gas fired turbine.

Corrective Action or Preventive Steps Taken:

The Gas Fired Turbine Startup Procedure did not clearly state the need to begin steam injection prior to attaining full firing rate on the turbine. The procedure has been modified to place emphasis on steam injection criticality, and operators will be trained on the modified procedure.

Applicable Regulation / Permit Condition / Other:

BAAQMD 2-6-307Date Event
Started:Date Event
Stopped:03/25/201603/28/2016Source (S#): S953Abatement Device (A#): A953

Emission Point (P#):

Event Description: #1 Gas Plant Engine M-2 failed a NOX emission test on 3/25/2016. The engine passed a retest that was performed on 3/28/2016. NOV A56207 was received on 9/8/2016.

Probable Cause:

The engine's emission control system was not functioning properly.

Corrective Action or Preventive Steps Taken:

Refinery Operations shut down the engine immediately upon notification of the failed test by the source testing contractor. Maintenance was performed on the engine's emission control system, and the engine passed the re-test conducted by the source testing contractor on 3/28/2016.

Applicable Regulation / Permit Condition / Other:

BAAQMD 1-522(4)Date Event
Started:Date Event
Stopped:07/20/201607/23/2016Source (S#): S950Abatement Device (A#): A1432

Emission Point (P#):

Event Description: The refinery received verbal notification from its contractor that the F-50 NOX CEMS may have failed RATA. This was reported to the District as RCA 06Z80.

Probable Cause:

CEMS analyzer technicians determined that the NOX analyzer began drifting during the RATA. In addition, NOX emission rates from the furnace are very low, exacerbating the measured percent differences between the refinery's NOX analyzer and the reference NOX analyzer used during the test.

Corrective Action or Preventive Steps Taken:

The refinery's NOX analyzer was repaired following the conclusion of the RATA test runs. Another RATA will be conducted by mid-September 2016.

Applicable Regulation / Permit Condition / Other:

BAAQMD 1-522(4)Date Event
Started:Date Event
Stopped:07/27/201607/27/2016Source (S#): S901Abatement Device (A#): A30

Emission Point (P#):

Event Description: An instance of CEMS downtime was not reported within 24 hours in accordance with Reg 1-522.4. The sample line associated with 7 Boiler CEMS had become plugged and data were invalid from 5/23/2016 to 5/25/2016 until the sample line was repaired. The downtime was reported as RCA 06Z85 on 7/27/2016 as soon Environmental discovered that the data were invalid. NOV A56216 was issued on 11/1/2016.

Probable Cause:

The sample conditioning system designed to remove acid mist and particulate matter from the sample (i.e., the sample ammonia scrubber) had become plugged and was restricting flow. As a result, data collected between 5/23/2016 18:13 and 5/25/2016 15:11 were not valid.

Corrective Action or Preventive Steps Taken:

The ammonia scrubber associated with the sample conditioning system was replaced, the sample line leak checked, and a manual calibration was performed. The I/E Department has determined that the failure rate for the ammonia scrubbers is every 4-6 days on this unit and will be proactively replacing the scrubbers every 4 days. In addition, communications between the CEMS analyzer technicians and the Environmental Department have been improved to ensure that the Environmental Department is aware of CEMS operating status each day.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-9-504Date Event
Started: Date Event
Stopped:07/28/201610/21/2016Source (S#): S963Abatement Device (A#): A963

Emission Point (P#):

Event Description: An annual source test for NOX required for the Alky Turbine pursuant to Reg 9-9-504 was conducted more than 1 year after the previous source test. The source test should have been completed by 7/28/2016. The test was discovered to be late on 10/17/2016; a source test was performed on 10/28/2016.

Probable Cause:

The annual source test for the turbine was performed more than 1 year from its previous test date because of miscommunication between the BAAQMD and the refinery. Initially, a source test protocol had been submitted to the District for a proposed May 2016 test date, but communication with the District indicated that the additional pollutants added to the protocol (the intent being to quantify emissions prior to the source being shut down during the next turnaround) would yield no quantifiable results and that the test protocol would be redundant to the annual required test. As the annual required source test had been initiated by the District in previous years, the test was overlooked until performing an internal review, at which time, the District was notified and an annual compliance test was promptly scheduled.

Corrective Action or Preventive Steps Taken:

A NOX source test was performed on 10/28/2016.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started: Date Event
Stopped:09/07/201609/07/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Elevated ambient H2S concentrations were detected at the Pacheco Slough GLM location. Winds were generally calm and blowing from the NE, N, and NW. The excess was reported to the District as RCA 07A21.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H2S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that contains residual acid tar (RAT). The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities ceased. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

Date Event Started: Date Event Stopped:

09/19/2016 09/19/2016 Source (S#): B2758 Abatement Device (A#): Emission Point (P#):

Event Description: Intermittent periods of elevated ambient H2S concentrations were detected at the Pacheco Slough GLM location. Winds were generally calm and blowing from the NW. The excess was reported to the District as RCA 07A31.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H2S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that contains residual acid tar (RAT). The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities ceased. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other;
BAAQMD 9-2-301

Date Event Started: Date Event Stopped:

09/25/2016 09/25/2016 Source (S#): B2758 Abatement Device (A#): Emission Point (P#):

Event Description: Intermittent periods of elevated ambient H2S concentrations was monitored at the Waterfront Rd GLM location, as reported to the Air District on 09/26/2016 as RCA 07A34. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

The monitored wind direction during the periods of excess indicate that the H2S originated offsite and that the Refinery did not emit the H2S that caused the recorded excess.

Corrective Action or Preventive Steps Taken:

No corrective action taken. Tesoro believes that the collected meteorological and GLM data show that the H2S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:
BAAQMD 9-2-301

Date Event Started: Date Event Stopped:

09/26/2016 09/26/2016 Source (S#): B2758 Abatement Device (A#): Emission Point (P#):

Event Description: A brief period of elevated ambient H2S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 09/26/2016 as RCA 07A35. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

The monitored wind direction during the period of excess indicates that the H2S originated offsite and that the Refinery did not emit the H2S that caused the recorded excess.

Corrective Action or Preventive Steps Taken:

No corrective action taken. Tesoro believes that the collected meteorological data and GLM data show that the H2S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started: Date Event
Stopped:09/27/201609/27/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NW. The excess was reported to the District as RCA 07A36 on 9/27/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that contains residual acid tar (RAT). The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities ceased. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 11-10-305Date Event
Started: Date Event
Stopped:10/01/201610/02/2016

Source (S#):

Abatement Device (A#):

Emission Point (P#):

Event Description: Daily samples of cooling tower water needed to analyze for toxic air contaminants (TACs) for the Alky Cooling Tower and 2 Reformer Cooling Tower were not taken on 10/1 and 10/2. Daily samples taken between 9/20 and 9/27 indicated a leak requiring enhanced daily monitoring for TACs. Results for those samples were not obtained until 9/29. Daily total hydrocarbon (THC) samples taken on 9/28 show that the two cooling towers were below the leak action level on 10/1 and 10/2. However, the results verifying that the leak had stopped were not received by 10/1. Tesoro consulted with its assigned BAAQMD inspector who recommended reporting as a Title V deviation.

Probable Cause:

McCampbell Labs failed to supply the needed sample bottles and preservatives needed for daily TAC sampling due to an internal miscommunication (i.e., Tesoro's request for bottles was not processed correctly).

Corrective Action or Preventive Steps Taken:

All requests for sample bottles will be submitted by Tesoro in writing via email.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/03/201610/04/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: A brief period of elevated ambient H₂S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 10/04/2016 as RCA 07A42. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

A time-series analysis of wind direction, wind speed, and monitored ambient concentrations shows that the ambient concentrations were elevated during periods when the winds blew from the direction of the tidally influenced wetlands located adjacent to the GLM site.

Corrective Action or Preventive Steps Taken:

No corrective action taken. The collected meteorological data and GLM data show that the H₂S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/06/201610/06/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NW. The excess was reported to the District as RCA 07A44 on 10/7/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that can potentially emit H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that historically stored waste materials. The activities were occurring within 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities cease. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/07/201610/07/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: A brief period of elevated ambient H₂S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 10/04/2016 as RCA 07A45. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

A time-series analysis of wind direction, wind speed, and monitored ambient concentrations shows that the ambient concentrations were elevated during periods when the winds blew from the direction of the tidally influenced wetlands located adjacent to the GLM site.

Corrective Action or Preventive Steps Taken:

No corrective action taken. The collected meteorological data and GLM data show that the H₂S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/08/201610/08/2016

Source (S#):

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NW. The excess was reported to the District as RCA 07A46 on 10/10/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that can potentially emit H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that historically stored waste materials. The activities were occurring within 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities cease. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/10/201610/10/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NW. The excess was reported to the District as RCA 07A48 on 10/11/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that can potentially emit H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that historically stored waste materials. The activities were occurring within 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities cease. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 8-5-304(4)Date Event
Started:Date Event
Stopped:10/11/201610/12/2016Source (S#): S642

Abatement Device (A#):

Emission Point (P#):

Event Description: During a routine check on tank TK-642, a small amount of product (~1-gal) was discovered on the roof near the roof drain and sump pump. The product was promptly cleaned up from the roof. The blind flange that was installed on a check valve previously found to be leaking (see NOV A56210) was verified to be leak free.

Probable Cause:

The refinery has not been able to determine the cause of the material found in the vicinity of the roof drain. The roof drain was removed from service in June 2016, and the blind flange was verified to be leak free.

Corrective Action or Preventive Steps Taken:

The refinery performs daily visual observations of the tank roof. There has not been any product observed on the roof since the incident occurred.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/18/201610/18/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NW. The excess was reported to the District as RCA 07A53 on 10/19/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that can potentially emit H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that historically stored waste materials. The activities were occurring within 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities cease. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started: Date Event
Stopped:10/19/201610/19/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NW. The excess was reported to the District as RCA 07A55 on 10/20/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that can potentially emit H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that historically stored waste materials. The activities were occurring within 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities cease. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started: Date Event
Stopped:10/21/201610/21/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the NE, N, and NW. The excess was reported to the District as RCA 07A58 on 10/21/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that can potentially emit H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil removal and soil stabilization activities being performed in an area that historically stored waste materials. The activities were occurring within 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of sulfurous compounds. Ambient concentrations monitored by the GLM decrease after daily soil removal and soil stabilization activities cease. The soil removal and soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the area of the GLM for several more months.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/23/201610/23/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: A brief period of elevated ambient H₂S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 10/24/2016 as RCA 07A59. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

The monitored wind direction during the period of excess indicates that the H₂S originated offsite and that the Refinery did not emit the H₂S that caused the recorded excess.

Corrective Action or Preventive Steps Taken:

No corrective action taken. Tesoro believes that the collected meteorological data and GLM data show that the H₂S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:10/27/201610/27/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: A brief period of elevated ambient H₂S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 10/27/2016 as RCA 07A64. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

A time-series analysis of wind direction, wind speed, and monitored ambient concentrations shows that the ambient concentrations were elevated during periods when the winds blew from the direction of the tidally influenced wetlands located adjacent to the GLM site.

Corrective Action or Preventive Steps Taken:

No corrective action taken. The collected meteorological data and GLM data show that the H₂S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/01/201611/01/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07A66 on 11/1/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

40 CFR 60.690Date Event
Started:Date Event
Stopped:11/03/201611/03/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: During an internal audit of the refinery's NSPS QQQ program, it was discovered that there are some components that should have been included in the NSPS QQQ program.

Probable Cause:

A number of previous NSPS QQQ applicability determinations were reviewed by an independent third party at the request of the Refinery, and a small number of determinations were found to be in error. The findings indicate that some existing sewer components are subject to QQQ.

Corrective Action or Preventive Steps Taken:

The sewer components have been added to the refinery's QQQ program, and compliance activities are being performed on the components. The Refinery's MOC checklist is being improved to reduce ambiguity and improve future applicability determinations.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/07/201611/07/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: A brief period of elevated ambient H2S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 11/7/2016 as RCA 07A72. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

The monitored wind direction during the period of excess indicates that the H2S originated offsite and that the Refinery did not emit the H2S that caused the recorded excess.

Corrective Action or Preventive Steps Taken:

No corrective action taken. Tesoro believes that the collected meteorological data and GLM data show that the H2S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/07/201611/08/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: A brief period of elevated ambient H2S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 11/8/2016 as RCA 07A73. Winds were calm and blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

The monitored wind direction during the period of excess indicates that the H2S originated offsite and that the Refinery did not emit the H2S that caused the recorded excess.

Corrective Action or Preventive Steps Taken:

No corrective action taken. Tesoro believes that the collected meteorological data and GLM data show that the H2S was not emitted by the Refinery.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/10/201611/10/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e. N / NE / NW). The excess was reported to the District as RCA 07A84 on 11/14/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/11/201611/11/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07A85 on 11/14/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/12/201611/12/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07A86 on 11/14/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/14/201611/14/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07A89 on 11/15/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/17/201611/17/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07A99 on 11/18/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/18/201611/18/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07B00 on 11/18/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:11/22/201611/22/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07B02 on 11/22/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event
Started:Date Event
Stopped:12/09/201612/09/2016Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Intermittent periods of elevated ambient concentrations were monitored at the Pacheco Slough GLM location. Wind conditions were calm and blowing from the north (i.e., N / NE / NW). The excess was reported to the District as RCA 07B19 on 12/9/2016.

Probable Cause:

There are no Refinery process operations north of the GLM site that are potential sources of H₂S. The elevated ambient concentrations detected at the GLM are believed to have been caused by sulfur compounds (such as mercaptans, sulfides, and thiophene compounds) released during soil stabilization activities being performed on a legacy waste management unit adjacent to the GLM site. The activities were occurring about 100 ft upwind of the GLM at the time the excess occurred.

Corrective Action or Preventive Steps Taken:

Water and odor suppressants are continuously applied to disturbed soil areas in an effort to minimize the evolution of odorous compounds. Ambient concentrations monitored by the GLM decrease after daily soil stabilization activities cease. The soil stabilization activities are being performed pursuant to a court order that compels the Refinery to continue the activities in the vicinity of the GLM until the area is completely stabilized to minimize environmental risk to nearby sensitive areas.

Applicable Regulation / Permit Condition / Other:

Title V-VI(11433)(16)

Date Event
Started: Date Event
Stopped:

12/19/2016 12/22/2016 Source (S#): S802 Abatement Device (A#): A30, S901 Emission Point (P#):

Event Description: The NOX CEMS on the FCCU Regenerator (S-802) failed a Relative Accuracy Audit (RAA) that was performed on 12/19/2016. The refinery received verbal notification of the failed audit on 12/20/2016. Maintenance was performed on 12/20/2016, and a follow-up audit was performed on 12/22/2016.

Probable Cause:

The analyzer passed its daily autocalibration prior to the start of the audit. The Sample Regulator (controls the sample pressure to the analyzers and helps maintain steady sample flows) failed, resulting in failure of the compliance audit.

Corrective Action or Preventive Steps Taken:

Data collected during the compliance audit suggests that the Sample Regulator failed during the audit. A new Sample Regulator was installed on 12/20/2016. The analyzer passed a follow-up audit that was performed on 12/22/2016.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301

Date Event
Started: Date Event
Stopped:

12/20/2016 12/20/2016 Source (S#): B2758 Abatement Device (A#): Emission Point (P#):

Event Description: A brief period of elevated ambient H2S concentration was monitored at the Waterfront Rd GLM location, as reported to the Air District on 12/20/2016 as RCA 07B26. Winds were blowing from the tidally influenced wetlands located adjacent to the GLM site.

Probable Cause:

The monitored wind direction during the period of excess indicates that the H2S originated offsite and that the Refinery did not emit the H2S that caused the recorded excess.

Corrective Action or Preventive Steps Taken:

No corrective action taken. Tesoro believes that the collected meteorological data and GLM data show that the H2S was not emitted by the Refinery.

Certification Statement:

I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.



Signature of Responsible Official

Thomas A. Lu

Print Name

Vice President,
Martinez Refinery

Title

1/27/2017

Date